| Work Ord                                    |                            |                                    |  | *108                 | 3983*                    |            |              |               |                    |                  | Page 1         |
|---|----------------------------|------------------------------------|--|----------------------|--------------------------|------------|--------------|---------------|--------------------|------------------|----------------|
| Item ID:<br>Revision ID:<br>Item Name:      | D4131-041<br>Manifold Assy | /                                  |  | Accept               | *N900                    | <b>040</b> | 100          | )* ፡          | Setup Star<br>Stop | IVI              | S1*<br>S2*     |
| Start Date:<br>Required Date:<br>Reference: | 10/31/13                   | Start Qty: 5.00<br>Req'd Qty: 5.00 | *5*<br>*5*                             |                      | Cust Item I<br>Customer: | D:         |              |               |                    |                  |                |
| Approvals:                                  |                            | n: MCJ                             | Date: 13-10-31                         |                      |                          | ate:       |              | F             | Run Star<br>Stoj   | !/               | R1*<br>R2*     |
| Sequence ID/<br>Work Center I               | D                          | Operation<br>Description           | ······································ | Set Up/<br>Run Hours | Tool ID                  | Tool #     | Plan<br>Code | Accept<br>Qty | Reject<br>Qty      | Reject<br>Number | Insp.<br>Stamp |
| Draw Nbr                                    | Rev                        | ision Nbr                          |  |                      |                          |            |              |               |                    |                  |                |
| D4131                                       | В                          |                                    |  |                      |                          |            |              | -             |                    |                  |                |
| 100   |                            | Weld per dwg A/R S.S.              | rod Batch: 14/2565                     | <b>/</b> 0.00        |                          |            |              |               |                    |                  |                |
| *100*<br>Large Fab                          |                            | Memo                               |  | 0.00                 |                          |            |              | 6             | R.                 | 13-12            | - 6            |
|   |                            |                                    |  |                      |                          |            |              |               |                    |                  |                |
| 110   |                            | QC9- Inspect visual per            | QSI004- Fusion Welds                   | 0.00                 |                          |            |              |               |                    | Fig.             | DAS<br>9       |
| *1110*<br>QC<br>Quality Control             |                            | Memo                               | ·                                      | 0.00                 |                          |            |              | <b>©</b>      | 13-1               | P.6              | 9-89           |

120

QC5- Inspect part completeness to step on W/O

0.00

DAS 9 9-89

\*120\*

Memo

0.00

(b) 13-12.09

Quality Control

**/**11"

| DQA:   |   | Date:  |               |      |  |     |  |   |  |    |   |  | *      | DART   |
|--|---|--|---------------|------|--|-----|--|---|--|----|---|--|--------|--|
| QA Closed:   |   | Date:  |               |      | WORK ORDER NON   | -C( | ONFOI  | RMANCE / U  | JPDATE   | W  | ork Order up  | odate only   | П      | AEROSPACE  |
| Work Order:  |   |  |               |      | DISPOSITION  |     |  |   | AGAINST  | DE | PARTMENT  | /PROCESS   |        |  |
| Part No.<br>NCR No.  |   |  |               |      | Rework Scrap Use-as-is Suspected Unapproved  |     |  | Skid-tube Machining noforming Large Fab                     | Crosstube<br>Small Fab<br>Finishing<br>Composite |    | -1  | Water Jet<br>d. Eng. Coor.<br>re/Packaging<br>Supplier |        | Engineering Quality Other  |
| Root   |   |  |               | Desc | ription of work order update   |     | Initial  | Α   | ction  |    | Sign &  |  | $\Box$ |  |
| Cause  | Date  | Step   | Qty           |      | or non-conformance   | Cr  | nief Eng   | Des   | cription   |    | Date  | Verificatio  | n      | QC Inspector   |
| Design Doc/Data Equip/Tooling Handling/Pre Material Operator Offset/Setup Process Supplier Training Transport Unapproved |   |  |               | •    |  |     |  |   |  | Ċ  |   |  |        |  |
|  |   |  |               |      |  | FA  | ULT CAT  | EGORY   |  |    | <u> </u>  |  |        |  |
| Landing  | 7   |  |               |      | General  |     | •  |   |  |    |   |  |        |  |
|  | Bending Centre No Cracks Crimp/Kir Cuffs Crushing Heat Trea Inspection Marks/Ch | nk/Ripple<br>at<br>n Strip in<br>natter<br>equence | /Wave<br>Tube |      | Bend BOM/Route Broken/Damage/Defect Burrs Contamination Countersink Cut Too Short Drawing Drill Holes Finish |     | Grain Hardwa Inspecti Instruct Misalig Mislabe Misread Off-set | on Incomplete/I<br>ions Incomplete<br>ned/off center<br>led | /Unclear   |    | Outside Dim<br>Over/Under<br>Part Incorred<br>Part Lost/Mi<br>Part Moved<br>Positioned V<br>Power Loss/ | tolerance<br>ct<br>ssing<br>Vrong                      |        | Pressure/Forced<br>Set-up<br>Temperature/Cure<br>Weld<br>Wrong Stock Pulled<br>Other |
| ] ]  | Wave/Tw   | ist in Tub   | e             |      | Fit/Function   | 1   | Out of s   | Sentience   |  |    |   |  |        |  |

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| Work Orde<br>October-31-13                                  |                         |                                      | :                           | *108  | 3983 | *                  |            |              |               |                   |                  | Page 2      |                     |
|---|-------------------------|--------------------------------------|-----------------------------|---|------|--------------------|------------|--------------|---------------|-------------------|------------------|-------------|---------------------|
| Revision ID:  | D4131-041 Manifold Assy | ·                                    |                             | Accept  | *N9  | ററ                 | <b>040</b> | 100          | )* s          | Setup Start       | I VI             | S1*<br>S2*  |                     |
| *   | 10/31/13                | Start Qty: 5.00<br>Req'd Qty: 5.00   | *5*<br>*5*                  |   |      | t Item I<br>tomer: | D:         |              |               |                   | I VI             |             |                     |
| Approvals:  | Process Pla             | in:                                  | Date:                       | Tooling: SPC (Y/N):                                     |      |                    | ate:       |              | F             | Run Start<br>Stop | 1/1              | R1*<br>R2*  |                     |
| Sequence ID/<br>Work Center II<br>124<br>*194*<br>Small Fab | )                       | Operation Description  Memo ASSEMBLE | E LABEL PLATE AS PER I      | Set Up/<br>Run Hours<br>0.00<br>0.00<br>DWG (D4131-045) | To   | ol ID              | Tool #     | Plan<br>Code | Accept<br>Qty | Reject<br>Qty     | Reject<br>Number | Insp. Stamp | DAS<br>/ 36<br>9-89 |
| 126 *176* QC Quality Control                                |                         | QC5- Inspect part compl              | eteness to step on W/O      | 0.00 DAS<br>27<br>0.00 P8                               | ,    |                    |            |              | 6             |                   |                  |             |                     |
| *130 *130* Packaging Packaging                              |                         | Identify as per dwg & Sto            | ock Location: <u>STO</u> 9( | 0.00  |      |                    |            |              | 6x            | DAS 28 989        | 3-12             |             |                     |

| JQA: _       |            | . Date:    |       |       | WORK ORDER NON-              | .cc           | ONEOI    | RMANCE / III        | DDATE      |              |                | DART               |
|--------------|------------|------------|-------|-------|------------------------------|---------------|----------|---------------------|------------|--------------|----------------|--------------------|
| QA Closed:   |            | Date:      |       |       | WORK ORDER NOR               |               |          | WINTEL / OI         |            | Vork Order u | pdate only     | AEROSPACE          |
| Work Orde    | :          |            |       |       | DISPOSITION                  |               |          |                     | AGAINST D  | EPARTMENT    | /PROCESS       |                    |
| work Orde    | ·          |            |       |       | Rework                       |               |          | Skid-tube           | Crosstube  | 7            | Water Jet      | Engineering        |
| Part N       | ٥.         |            |       |       | Scrap                        |               | . !      | Machining Machining | Small Fab  | Pro          | od. Eng. Coor. | Quality            |
|              |            |            |       |       | Use-as-is                    |               |          | noforming           | Finishing  | <del>_</del> | re/Packaging   | Other              |
| NCR N        | 0.         |            |       |       | Suspected Unapproved         |               |          | Large Fab           | Composite  |              | Supplier       |                    |
|              |            |            |       |       |                              |               |          |                     |            |              |                |                    |
| Root         |            |            |       | Desci | ription of work order update | 1             | Initial  | Act                 | ion        | Sign &       |                |                    |
| Cause        | Date       | Step       | Qty   |       | or non-conformance           | Ch            | ief Eng  | Descr               | iption     | Date         | Verification   | QC Inspector       |
| Design       |            |            |       | 1     |                              |               |          |                     |            |              |                |                    |
| Doc/Data     |            |            |       |       |                              |               |          |                     |            |              |                |                    |
| quip/Tooling |            |            |       |       |                              |               |          |                     |            |              |                |                    |
| Handling/Pre |            |            |       |       |                              |               |          |                     |            | 1            |                |                    |
| Material     | •          |            |       |       |                              |               |          |                     |            |              |                |                    |
| Operator     |            |            |       |       |                              | ł             |          |                     |            |              |                |                    |
| Offset/Setup |            |            |       |       |                              |               |          |                     |            |              |                |                    |
| Process      |            |            |       |       |                              |               |          |                     |            |              |                |                    |
| Supplier     |            |            |       |       |                              |               |          |                     |            |              |                |                    |
| Training     |            |            |       |       |                              |               |          |                     |            |              |                |                    |
| Fransport [  |            |            |       |       |                              |               |          |                     |            |              |                |                    |
| Jnapproved   |            |            |       |       |                              |               |          |                     |            |              |                |                    |
|              |            |            |       |       |                              | FAI           | ULT CAT  | TEGORY              |            |              |                |                    |
| Landin       | g Gear     |            |       |       | General                      |               |          |                     |            |              |                |                    |
| L            | Bending    |            |       |       | Bend                         |               | Folio/P  | rogram              |            | Outside Din  | nensions       | Pressure/Forced    |
|              | Centre No  | ot Concei  | ntric |       | BOM/Route                    |               | Grain    |                     |            | Over/Unde    | tolerance      | Set-up             |
|              | Cracks     |            |       |       | Broken/Damage/Defect         |               | Hardwa   | re                  | T          | Part Incorre | ct             | Temperature/Cure   |
|              | Crimp/Kir  | nk/Ripple  | /Wave |       | Burrs                        |               | Inspecti | ion Incomplete/Ur   | nqualified | Part Lost/N  | issing         | Weld               |
|              | Cuffs      |            |       |       | Contamination                |               | 1        | ions Incomplete/U   | · -        | Part Moved   | -              | Wrong Stock Pulled |
|              | Crushing   |            |       |       | Countersink                  |               | Misalig  | ned/off center      |            | Positioned ' | <br>Wrong      | <b>_</b>           |
|              | Heat Trea  | at         |       |       | Cut Too Short                | $\overline{}$ | Mislabe  |                     |            | Power Loss,  |                | Other              |
|              | Inspection | n Strip in | Tube  |       | Drawing                      |               | Misread  | i                   | _          |              | - <u>L</u>     |                    |
|              | Marks/Ch   | natter     |       |       | Drill Holes                  |               | Off-set  |                     |            |              |                |                    |
|              | Turning S  | equence    |       |       | Finish                       |               | 1        | Calibration         |            |              |                |                    |
|              | Wave/Tw    | ist in Tub | oe .  |       | Fit/Function                 |               | 4        | Sequence            |            |              |                |                    |

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| Work Orde                      |                      |                                    |                      | *108                 | 3983*                 |        |              |              |            |       |                  | Page           | 3          |
|--------------------------------|----------------------|------------------------------------|----------------------|----------------------|-----------------------|--------|--------------|--------------|------------|-------|------------------|----------------|------------|
| Revision ID:                   | D4131-041            |                                    |                      | Accept               | *N900                 | 040    | 100          | )*           | Setup      | Start | ı VI ,           | S1*            |            |
|                                | Manifold Ass         | •                                  | 4-4                  |                      |                       |        |              |              |            | Stop  | *N:              | S2*            |            |
| Start Date:<br>Required Date:  | 10/31/13<br>11/14/13 | Start Qty: 5.00<br>Req'd Qty: 5.00 | *5*<br>*5*           |                      | Cust Item I Customer: | D:     |              |              |            |       |                  |                |            |
| Reference:                     |                      |                                    | . 1                  |                      |                       |        |              |              |            |       |                  |                |            |
| Approvals:                     | Process Pl           | an:                                | Date:                | Tooling:             | D:                    | ate:   |              |              | Run        | Start | *N               | R1*            |            |
|                                | QC:                  |                                    | Date:                | SPC (Y/N):           | Da                    | ate:   |              |              |            | Stop  | *N               | R2*            |            |
| Sequence ID/<br>Work Center II | )                    | Operation<br>Description           |                      | Set Up/<br>Run Hours | Tool ID               | Tool # | Plan<br>Code | Accep<br>Qty | t Re<br>Qt | -     | Reject<br>Number | Insp.<br>Stamp |            |
| *140<br>*140*                  |                      | QC21- Final Inspection -           | · Work Order Release | 0.00                 |                       |        |              |              |            | n/    | 1/2-1            | 2-11-          | , ;<br>, ; |
| QC 1<br>Quality Control        |                      | Memo                               |                      | 0.00                 |                       |        |              |              | . —        | 12    | 1-12             |                | - '        |

CX13/12/11

| DQA:                    |                | Date:        |         |       | WORK ORDER NON               | ~        | 2015-01      | DAMANCE / LIE          | DATE                   |          |               |                            |               |                     |
|-------------------------|----------------|--------------|---------|-------|------------------------------|----------|--------------|------------------------|------------------------|----------|---------------|----------------------------|---------------|---------------------|
| QA Closed:              |                | Date:        |         |       | WORK ORDER NON-              | -((      | JNFOI        | RIVIAINCE / UI         | PDATE                  | W        | ork Order up  | odate only                 | $\Box$        | AEROSPACE           |
| Mark Onda               |                |              |         |       | DISPOSITION                  |          |              |                        | AGAINST                | DE       | PARTMENT      | /PROCESS                   |               |                     |
| Work Orde               | er             |              |         |       | Rework                       |          |              | Claid Author           | Cunnaturba             |          | 1             | \A/ator lat                | $\overline{}$ | - Curinaniu         |
| Part N                  | lo.            |              |         |       | Scrap                        |          |              | Skid-tube<br>Machining | Crosstube<br>Small Fab |          | Pro           | Water Jet<br>d. Eng. Coor. | $\vdash$      | Engineering Quality |
| raiti                   | <b>.</b>       |              |         | _     | Use-as-is                    |          |              | noforming              | Finishing              |          | 1             | re/Packaging               | $\vdash$      | Other               |
| NCR N                   | No.            |              |         |       | Suspected Unapproved         |          | 111011       | Large Fab              | Composite              | -        | 1100,510      | Supplier                   | -             | Other               |
|                         |                |              |         |       |                              | 1        |              |                        |                        | <u> </u> | 1             | 4.66                       |               |                     |
| Root                    |                |              |         | Desci | ription of work order update |          | Initial      | Act                    | ion                    |          | Sign &        |                            | $\neg$        |                     |
| Cause                   | Date           | Step         | Qty     |       | or non-conformance           | Ch       | nief Eng     | Descr                  | iption                 |          | Date          | Verification               | n             | QC Inspector        |
| Design                  | _              |              |         |       |                              |          |              |                        |                        |          |               |                            |               |                     |
| Doc/Data                |                |              |         |       |                              |          |              |                        |                        |          |               |                            |               |                     |
| Equip/Tooling           | _              |              |         |       |                              |          |              |                        |                        |          |               |                            |               |                     |
| Handling/Pre            | _              |              |         |       |                              |          |              |                        |                        |          |               |                            |               | •                   |
| Material                |                |              |         |       |                              |          |              |                        |                        |          |               |                            | -             |                     |
| Operator                |                |              |         |       |                              |          |              |                        |                        |          |               |                            |               |                     |
| Offset/Setup            | _              |              |         |       |                              |          |              |                        |                        |          |               |                            |               |                     |
| Process                 |                |              |         |       |                              |          |              |                        |                        |          |               |                            |               |                     |
| Supplier                |                |              |         |       |                              |          |              |                        |                        |          |               |                            |               |                     |
| Training                | $\blacksquare$ |              |         |       |                              |          |              |                        |                        |          |               |                            |               |                     |
| Transport<br>Unapproved |                |              |         |       |                              |          |              |                        |                        |          |               |                            |               |                     |
| Опарргочео              | <u> </u>       |              | <u></u> |       |                              | EAL      | III T CA     | I<br>TEGORY            |                        |          | <u> </u>      |                            |               |                     |
| Landi                   | ng Gear        |              |         |       | General                      | 17       | OLI CA       | LOOKI                  | (A) (A)                | -        |               |                            | —             |                     |
|                         | Bendin         | g            |         |       | Bend                         | Г        | ]<br>Folio/F | rogram                 |                        | Γ        | Outside Dim   | ensions                    |               | Pressure/Forced     |
|                         |                | Not Conce    | ntric   | -     | BOM/Route                    | $\vdash$ | Grain        |                        |                        |          | Over/Under    |                            | _             | Set-up              |
|                         | Cracks         |              |         |       | Broken/Damage/Defect         |          | Hardwa       | ire                    |                        | H        | Part Incorred |                            | -             | Temperature/Cure    |
|                         | Crimp/         | Kink/Ripple  | e/Wave  |       | Burrs                        |          | 1            | ion Incomplete/Un      | qualified              |          | Part Lost/Mi  |                            | -             | Weld                |
|                         | Cuffs          |              |         |       | Contamination                |          | 1            | ions Incomplete/U      |                        | Г        | Part Moved    | J                          | $\vdash$      | Wrong Stock Pulled  |
|                         | Crushin        | g            |         |       | Countersink                  |          | 1            | ned/off center         |                        |          | Positioned V  | Vrong                      |               |                     |
|                         | Heat Tr        | eat          |         |       | Cut Too Short                |          | Mislabe      |                        |                        |          | Power Loss/   | _                          |               | Other               |
|                         | Inspect        | ion Strip in | Tube    |       | Drawing                      |          | Misread      | d                      |                        | _        | •             | -                          |               |                     |
|                         | Marks/         | Chatter      |         |       | Drill Holes                  |          | Off-set      |                        |                        |          |               |                            |               |                     |
|                         | Turning        | Sequence     |         |       | Finish                       |          | Out of 0     | Calibration            |                        |          |               |                            |               |                     |
|                         | Wave/i         | wist in Tul  | ne .    |       | Fit/Function                 |          | Out of       | Saguanca               |                        |          |               |                            |               |                     |

| DQA:          |          |               | Date:      |       |          | MORY ORDER MON                 |         | ONEO!    | 2242165 / 11           |                     |              |                       | TRAC <sup>*</sup>  |
|---------------|----------|---------------|------------|-------|----------|--------------------------------|---------|----------|------------------------|---------------------|--------------|-----------------------|--------------------|
| QA Closed:    |          |               | Date:      |       |          | WORK ORDER NON-                | -C(     | JNFOI    | RIVIANCE / U           |                     | ork Order up | odate only            | AEROSPACE          |
|               |          |               |            |       |          | DISPOSITION                    |         |          |                        | AGAINST D           | EPARTMENT,   | /PROCESS              |                    |
| Work Orde     | er:<br>- | ·             |            |       |          |                                |         |          |                        |                     | 7            | _                     | , <del></del>      |
| D             |          |               |            |       |          | Rework                         |         |          | Skid-tube              | Crosstube           |              | Water Jet             | Engineering        |
| Part N        | ١٥       |               |            |       |          | Scrap                          |         |          | Machining              | Small Fab           |              | d. Eng. Coor.         | Quality            |
| NCR N         | vio.     |               |            |       |          | Use-as-is Suspected Unapproved |         | inern    | noforming<br>Large Fab | Finishing Composite | H Rec/Stol   | re/Packaging Supplier | Other              |
| NCK           | ١٠٠.     | · · · · · · · |            |       |          | Suspected Oliapproved          |         | 1        | raige rab              | composite           | ال           | 3upplier              | <b>.</b>           |
| Root          |          |               |            |       | Desci    | ription of work order update   | 1       | Initial  | Ac                     | tion                | Sign &       |                       |                    |
| Cause         |          | Date          | Step       | Qty   |          | or non-conformance             | Ch      | nief Eng | Desc                   | ription             | Date         | Verification          | QC Inspector       |
| Design        | $\Box$   |               |            |       |          | ·                              |         |          |                        |                     |              |                       |                    |
| Doc/Data      |          |               |            |       |          |                                |         |          |                        |                     |              |                       |                    |
| Equip/Tooling |          |               |            |       |          |                                |         |          |                        |                     |              |                       |                    |
| Handling/Pre  |          |               |            |       |          |                                |         |          |                        |                     |              |                       |                    |
| Material      |          |               |            |       |          |                                |         |          |                        |                     |              |                       |                    |
| Operator      | Щ        | I             |            |       |          |                                |         |          |                        |                     | 1            |                       |                    |
| Offset/Setup  |          |               |            |       |          |                                |         |          |                        |                     |              |                       |                    |
| Process       |          |               |            |       |          |                                |         |          |                        |                     |              |                       |                    |
| Supplier      |          |               |            |       |          |                                |         |          |                        |                     |              |                       |                    |
| Training      |          |               |            |       |          |                                |         |          |                        |                     |              |                       |                    |
| Transport     | Ш        |               |            |       |          |                                |         | •        |                        |                     |              |                       |                    |
| Unapproved    |          |               | 1          |       |          |                                |         |          |                        |                     |              |                       |                    |
|               |          |               |            | ·· ,  |          |                                | FAI     | ULT CA   | regory                 |                     |              |                       |                    |
| Landi         | ng G     | Sear          |            |       | _        | General                        |         | -        |                        | _                   | <b>_</b>     |                       | _                  |
|               | $\vdash$ | Bending       |            |       |          | Bend                           |         | Folio/F  | Program                |                     | Outside Dim  | ensions               | Pressure/Forced    |
|               | Щ        | Centre No     | ot Concer  | ntric | <u> </u> | BOM/Route                      | Ĺ       | Grain    |                        | L                   | Over/Under   | tolerance             | Set-up             |
|               | Ш        | Cracks        |            |       |          | Broken/Damage/Defect           |         | Hardwa   | ire                    | _                   | Part Incorre | ct                    | Temperature/Cure   |
|               | Ш        | Crimp/Kir     | nk/Ripple  | /Wave |          | Burrs                          |         | Inspect  | ion Incomplete/U       | Inqualified         | Part Lost/Mi | issing                | Weld               |
|               | Ш        | Cuffs         |            |       |          | Contamination                  |         | Instruct | tions Incomplete/      | Unclear             | Part Moved   |                       | Wrong Stock Pulled |
|               | -        | Crushing      |            |       |          | Countersink                    | <u></u> | Misalig  | ned/off center         |                     | Positioned V | Vrong                 | _                  |
|               | $\vdash$ | Heat Trea     |            |       |          | Cut Too Short                  | L       | Mislabe  | eled                   |                     | Power Loss/  | Surge                 | Other              |
|               | Ш        | Inspection    | n Strip in | Tube  |          | Drawing                        | L       | Misrea   | d                      |                     |              |                       |                    |
|               | Ш        | Marks/Ch      | atter      |       |          | Drill Holes                    | L       | Off-set  |                        |                     |              |                       |                    |
|               | Ш        | Turning S     | equence    |       |          | Finish                         |         | Out of   | Calibration            |                     |              |                       |                    |
|               |          | Wave/Tw       | ist in Tub | oe    |          | Fit/Function                   |         | Out of   | Sequence               |                     |              |                       |                    |

**Picklist Print** 

October-31-13 12:47:42 PM

Work Order ID: 108983

Parent Item:

Parent Item Name: Manifold Assy

D4131-041

\*108983\*

\*D4131-041\*

**Start Date:** 10/31/13

Required Date: 11/14/13

Start Qty: 5.00

\*\*

Required Qty: 5.00

10

Purchased

No

124

Each

1,362.000

DAS 36

Page 2

\*MS20615-3M3\*

MIS20616-8MB

Location ST312

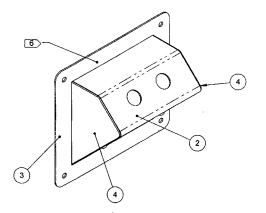
Loc Qty 1362 Loc Code

124859

1362

| DQA:          |             | Date          | :                                     |       |                              |     |          |                        |                     |               |                                       | T RAGE              |
|---------------|-------------|---------------|---------------------------------------|-------|------------------------------|-----|----------|------------------------|---------------------|---------------|---------------------------------------|---------------------|
| QA Closed:    |             | Date          | :                                     |       | WORK ORDER NON-              | -C( | ONFO     | RMANCE / UPE           |                     | ork Order up  | odate only                            | AEROSPACE           |
| Mark Ords     |             |               |                                       |       | DISPOSITION                  |     |          |                        | AGAINST DE          | <u>.</u>      | · · · · · · · · · · · · · · · · · · · |                     |
| Work Orde     | <u> </u>    |               |                                       | —     | Power!                       | ,   |          |                        | Cun antich a        | 1             | \A/ata= (at                           | 7                   |
| Part N        | lo.         |               |                                       |       | Rework<br>Scrap              |     |          | Skid-tube<br>Machining | Crosstube Small Fab | Dro           | Water Jet                             | Engineering Quality |
| raiti         |             |               |                                       |       | Use-as-is                    |     |          | noforming              | Finishing           | -             | d. Eng. Coor.<br>e/Packaging          | Other               |
| NCR N         | No.         |               |                                       |       | Suspected Unapproved         |     | HICH     | - <del>  </del>        | Composite           | 1 1100        | Supplier                              |                     |
|               | · · · · · · |               | · · · · · · · · · · · · · · · · · · · |       | - daspected of approved      | 1   |          | zurge rub              |                     | ]             | 3uppliet                              |                     |
| Root          |             |               |                                       | Desci | ription of work order update |     | nitial   | Actio                  | n                   | Sign &        |                                       |                     |
| Cause         | Dat         | e Step        | Qty                                   |       | or non-conformance           | Ch  | ief Eng  | Descript               | tion                | Date          | Verification                          | QC Inspector        |
| Design        |             | '             |                                       |       |                              |     |          |                        |                     |               |                                       |                     |
| Doc/Data      |             |               |                                       |       |                              |     |          |                        |                     |               |                                       |                     |
| Equip/Tooling |             |               |                                       |       |                              |     |          | 1                      |                     |               |                                       |                     |
| Handling/Pre  |             | ,             | 1                                     |       |                              | 1   |          |                        |                     |               |                                       |                     |
| Material      |             |               |                                       |       |                              | ļ   |          |                        |                     |               |                                       |                     |
| Operator      |             |               |                                       |       |                              |     |          |                        |                     |               |                                       |                     |
| Offset/Setup  |             |               |                                       |       |                              |     |          |                        |                     |               |                                       |                     |
| Process       |             |               |                                       |       |                              |     |          |                        |                     |               |                                       |                     |
| Supplier      |             |               |                                       | •     |                              |     |          |                        |                     |               |                                       |                     |
| Training      |             |               |                                       |       |                              |     |          |                        |                     |               |                                       |                     |
| Transport     |             |               |                                       |       |                              |     |          |                        |                     |               |                                       |                     |
| Unapproved    |             |               |                                       |       |                              |     |          |                        |                     |               |                                       |                     |
|               |             |               |                                       |       |                              | FAI | ULT CA   | ΓEGORY                 |                     |               |                                       |                     |
| Landi         | ng Gear     |               |                                       |       | General                      |     | _        |                        |                     |               |                                       |                     |
|               | Bendi       | ng            |                                       |       | Bend                         |     | Folio/F  | Program                |                     | Outside Dim   | ensions                               | Pressure/Forced     |
|               | Centr       | e Not Conce   | entric                                |       | BOM/Route                    |     | Grain    |                        |                     | Over/Under    | tolerance                             | Set-up              |
|               | Crack       | S             |                                       |       | Broken/Damage/Defect         |     | Hardwa   | ire                    |                     | Part Incorred | et 🗌                                  | Temperature/Cure    |
|               | Crimp       | /Kink/Rippl   | le/Wave                               |       | Burrs                        |     | Inspect  | ion Incomplete/Unqu    | ualified            | Part Lost/Mi  | ssing                                 | Weld                |
|               | Cuffs       |               |                                       |       | Contamination                |     | Instruct | tions Incomplete/Und   | clear               | Part Moved    |                                       | Wrong Stock Pulled  |
|               | Crush       | ing           |                                       |       | Countersink                  |     | Misalig  | ned/off center         |                     | Positioned V  | Vrong                                 |                     |
|               | Heat        | Treat         |                                       |       | Cut Too Short                |     | Mislabe  | eled                   |                     | Power Loss/   | Surge                                 | Other               |
|               | Inspe       | ction Strip i | n Tube                                |       | Drawing                      |     | Misread  | d                      |                     |               |                                       |                     |
|               | Mark        | s/Chatter     |                                       |       | Drill Holes                  |     | Off-set  |                        |                     |               |                                       |                     |
|               | _           | ng Sequenc    |                                       |       | Finish                       |     | Out of   | Calibration            |                     |               |                                       |                     |
|               | Wave        | /Twist in Tu  | ıbe                                   |       | Fit/Function                 |     | Out of   | Sequence               |                     |               |                                       |                     |

| ITÉM | QTY<br>-041 | PART NUMBER | DESCRIPTION       |
|------|-------------|-------------|-------------------|
| 1    | Х           | D4131-041   | MANIFOLD ASSEMBLY |
| 2    | 1           | D4131-045   | BASE ASSEMBLY     |
| 3    | 1           | D4131-1     | FRONT PLATE       |
| 4    | 2           | D4131-5     | SIDE PLATE        |



13-10-31



## **D4131-041 MANIFOLD ASSEMBLY**

NOTES:
1) MATERIAL: N/A
2) FINISH: N/A
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: PER QSI 044 6.1
7) WEIGHT: 0.66 lbs

| В      | D4131-0<br>3); ADD | 45 WAS D413<br>Φ0.098 (ZN Β | 1-3 (ZN D3-1); ADD 4131-045 (ZN B4-<br>4-7); ADD 4131-9 (ZN B5-10)   | RF          | 11.07.27   |
|--------|--------------------|-----------------------------|--|-------------|--|
| A      | NEW IS             | SUE                         | RF   | 10.09.16    |  |
| REV.   |                    |                             | DESCRIPTION  | BY          | DATE   |
| DESIG  | N                  | RF                          | DART AEROSPACE   | E USA       | A. INC.  |
| DRAW   | N                  | RF                          | KENT, WA   |             | ,  |
| CHEC   | KED                | 140                         | DRAWING NO.  |             | REV. B   |
| MFG. A | PPR.               | 77                          | 7 D4131  |             | SHEET 1 OF 10                                    |
| APPRO  | OVED               | NP                          | TITLE  |             | SCALE  |
| DE AP  | PR.                | -#                          | MANIFOLD ASSEMBI   | LY          | NTS  |
| DATE   | 11.0               | 7.27                        | COPYRIGHT © 2010 BY DART AE! THIS COOLINENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED NOT TO BE USED FOR ANY PURPOSE OR COPYED OR COMMUNIC WISTITTO PROMISSION PROM DART AREA. | ON THE EXPR | ESS CONDITION THAT IT IS<br>OTHER PERSON WITHOUT |

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